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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/550,758	09/23/2005	Young Ok Kim	58049-00019	1382
7590 Joseph Hyosuk Kim JHK Law Post Office Box 1078 La Canada, CA 91012-1078			EXAMINER RAGHU, GANAPATHIRAM	
			ART UNIT 1652	PAPER NUMBER
			MAIL DATE 10/30/2007	DELIVERY MODE PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/550,758	KIM ET AL.	
	Examiner	Art Unit	
	Ganapathirama Raghu	1652	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 10 September 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-3,5-7,9,13-16 and 20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-3,5-7,9,13-16 and 20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

Application Status

In response to the Second-Non Final Office Action mailed on 05/09/2007, applicants' filed a response and amendment received on 09/10/2007. Said amendment, amended claims 3, 7, 15 and 16, cancelled claims 8, 10-12 and 18. Thus, claims 1-3, 5-7, 9, 13-16 and 20 are pending in the instant Office Action and are now under consideration.

Objections and rejections not reiterated from previous action are hereby withdrawn.

Claim Rejections: 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 3, 7 and claim 14 dependent therefrom, are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Claim 3 recites the phrase "...represented by SEQ ID NO: 7...", claim 7 recites the phrase "...represented by SEQ ID NO: 6. It is not clear whether the isolated protein, actually has the sequence of SEQ ID NO: 7 or isolated polynucleotide, actually has the sequence of SEQ ID NO: 6 or they are a representative sequence of the isolated polypeptide and polynucleotide. Examiner suggests, that the applicants make a direct reference to the SEQ ID NO: 7 or SEQ ID NO: 6 such as "the amino acid sequence of SEQ ID NO: 7, such as "the polynucleotide sequence of SEQ ID NO: 6". Correction is required.

Maintain-Claim Rejections 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

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(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-3, 5, 9, 13, 14 and 20 are rejected under 35 U.S.C. 102(b) as being anticipated by Kim et al., (2002) when given the broadest interpretation. Claims 1-3, 5, 9, 13, 14 and 20 are directed to an isolated polypeptide from *Citrobacter braakii* YH-15 strain, said polypeptide comprising amino acid residues 23-433 of SEQ ID NO: 7 and having phytase activity with a specific activity of said polypeptide to phytate is at least 3,000 units/mg, and a feed additive comprising said polypeptide. Kim et al., (*supra*) disclose the isolation and characterization of a phytase polypeptide from *Citrobacter braakii* YH-15 strain with exactly the same physico-chemical, biochemical properties and having phytase activity with a specific activity of said polypeptide to phytate is 3,457 units/mg to the protein of the instant invention, and the commercial use of polypeptide with phytase activity as feed additive (see Abstract in IDS). Said reference is silent regarding the isolated polypeptide comprising amino acid residues 23-433 of SEQ ID NO: 7, however examiner takes the position that the source of the reference polypeptide is the same as the instant invention and therefore the reference polypeptide and the polypeptide of the instant invention are one and the same and the reference polypeptide inherently possess the amino acid residues 23-433 of SEQ ID NO: 7 of the instant invention.

Since the Office does not have the facilities for examining and comparing applicants' protein with the protein of the prior art, the burden is on the applicant to show a novel or unobvious difference between the claimed product and the product of the prior art (i.e., that the protein of the prior art does not possess the same material structural and functional characteristics of the claimed protein). See *In re Best*, 562 F.2d 1252, 195 USPQ 430 (CCPA 1977) and *In re Fitzgerald et al.*, 205 USPQ 594.

Applicants, have traversed the rejection with the following arguments:

(A) Kim et al., do not enable the claimed subject matter at all... only reports limited physico-biochemical properties... many cases of different polypeptides with same physico-biochemical properties such as in cases of isozymes (allozymes) or isoforms of the same enzymes.

(B) Instant claim encompasses a polypeptide comprising amino acid residues 23-433 of SEQ ID NO: 7, it is uncertain whether the activity reported by Kim et al., is the result of a polypeptide with a sequence related to SEQ ID NO: 7

Applicants' arguments have been considered, however they are found to be non-persuasive, as mentioned in the above rejection the source of the enzyme of the instant application is the same as the reference, i.e., *Citrobacter braakii* YH-15 strain with exactly the same physico-chemical, biochemical properties and having phytase activity measured under similar conditions. Furthermore isozymes and allozymes do have structural differences (either genetic/amino acid structure or epigenetic involving posttranslational modifications, addition of tags) and especially they have differing kinetic properties. In the instant case both the reference polypeptide and the polypeptide of the instant application have identical kinetic properties and examiner takes the position that the reference polypeptide inherently possess the same structure and the correlated function. Hence the burden is on the applicant to show a novel or unobvious difference between the claimed product and the product of the prior art (i.e., that the protein of the prior art does not possess the same material structural and functional characteristics of the claimed protein). Furthermore, "comprising" is a open language and thus claims as written reads on the polypeptide disclosed by Kim et al., (2002)

Summary of Pending Issues

The following is a summary of issues pending in the instant application.

- 1) Claims 6, 7 and 15-16 are objected to as they depend from rejected base claims 1-3.
- 2) Claims 3, 7 and claim 14 dependent therefrom, are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.
- 3) Claims 1-3, 5, 9, 13, 14 and 20 are rejected under 35 U.S.C. 102(b) as being anticipated by Kim et al., (2002) when given the broadest interpretation.

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Final Comments

To insure that each document is properly filed in the electronic file wrapper, it is requested that each of amendments to the specification, amendments to the claims, Applicants'

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remarks, requests for extension of time, and any other distinct papers be submitted on separate pages.

It is also requested that Applicants identify support, within the original application, for any amendments to the claims and specification.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ganapathirama Raghu whose telephone number is 571-272-4533. The examiner can normally be reached on M-F; 8:00-4:30 pm EST. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ponnathapu Achutamurthy can be reached on 571-272-0928. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300 for regular communications and for After Final communications. Any inquiry of a general nature or relating to the status of the application or proceeding should be directed to the receptionist whose telephone number is 571-272-1600.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Ganapathirama Raghu, Ph.D.
Patent Examiner
Art Unit 1652
Oct. 17, 2007.


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